Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (**Previously Presented**) A method of bonding an upper substrate and a lower substrate in order to manufacture a plastic micro chip comprising the upper substrate, the lower substrate and a sample filling space having a predetermined height for filling a sample between the upper and lower substrates, the method comprising:

(a) forming recesses in each of side lower ends of a bonding region of the upper substrate, wherein the bonding region is a circumference region of the sample filling space; and

(b) overlapping the upper substrate and the lower substrate each other, and then introducing the organic solvent into the recesses to bond the upper and lower substrates, wherein the recesses are open channels and the organic solvent is introduced into the recesses by capillary phenomenon,

wherein the bonding region is bonded by the organic solvent introduced into the recesses.

2. (**Previously Presented**) A method of manufacturing a plastic micro chip comprising an upper substrate, a lower substrate and a sample filling space having a predetermined height for filling a sample between the upper and lower substrates, the method comprising:

(a) forming recesses in each of side lower ends of a bonding region of the upper substrate, wherein the bonding region

is a circumference region of the sample filling space; and

(b) overlapping the upper substrate and the lower substrate each other, and then introducing the organic solvent into the recesses to bond the upper and lower substrates,

wherein the recesses are open channels and the organic solvent is introduced into the recesses by capillary phenomenon,

wherein the bonding region is bonded by the organic solvent introduced into the recesses.

3. (**Previously Presented**) The method according to claim 2, further comprising a step of forming one or more holes for introducing the organic solvent communicating with the fine channel when the fine channel is formed in the step of (a).

4. (**Previously Presented**) The method according to claim 2, further comprising a step of performing a corona or plasma treatment for the bonding area so that the organic solvent subsequently introduced smoothly flows and a bonding strength is increased, after forming the fine channel.

5. (**Previously Presented**) The method according to claim 2, wherein the fine channel has height of 100μm or less.

6. (**Previously Presented**) The method according to claim 2, wherein the step of (b) further comprises a sub-step of pressurizing or decompressing the fine channel after introducing the organic solvent into fine channel.

7. (**Previously Presented**) The method according to claim 1, wherein the organic solvent is at least one selected from a group consisting of ketone, aromatic hydrocarbon, cyanoacrylate compound and halogenated hydrocarbon.

8. (**Currently Amended**) The method according to ~~claim 2~~ claim 7, wherein the organic solvent is at least one selected from a group consisting of acetone, chloroform, methylene chloride, ethlcyanoacrylate and carbon tetrachloride.

9. (**Previously Presented**) The method according to claim 1, wherein the upper and lower substrates are made of polycarbonate, polystyrene, polyproplene, polyethylene derivatives or polymethylmethylmethacrylate.

Claims 10-16 (**Cancelled**).

17. (**Previously Presented**) The method according to claim 5, wherein the organic solvent is at least one selected from a group consisting of ketone, aromatic hydrocarbon, cyanoacrylate compound and halogenated hydrocarbon.

18. (**Currently Amended**) The method according to ~~claim 2~~ claim 17, wherein the organic solvent is at least from a group consisting of acetone, chloroform, methylene chloride, ethylcyanoacrylate and carbon tetrachloride.

19. (**Previously Presented**) The method according to claim 2, wherein the upper and lower substrates are made of polycarbonate, polystyrene, polypropylene, polyethylene derivatives or polymethlmethacrylate.

20. (**Previously Presented**) A method for making a plastic micro chip comprising:

(a) providing an upper substrate and a lower substrate, the lower substrate and the upper substrate being adapted to be joined together along an interface in such a way

as to define therebetween a sample filling space having a predetermined height, the sample filling space being entirely surrounded by solid plastic;

further adapted to provide a fine channel within the solid plastic surrounding the sample filling space, the fine channel being provided in each of side lower ends of a bonding region of the upper substrate;

further adapted to provide solvent delivery holes whereby solvent can be delivered to the fine channel;

(b) bringing the upper substrate and lower substrate together into a laminating position;

(c) introducing organic solvent into the fine channel to join the upper substrate with the lower substrate, with the organic solvent passing through the fine channel and effecting bonding by movement of the organic solvent by capillary action.